

Amendments to the Specification

Please replace the paragraph beginning on pg. 14, line 2, with the following rewritten paragraph.

Forming a self aligned contact structure by etching a single dielectric layer with multiple etch chemistries may provide several advantages over standard methods for forming self aligned contact structures. For example, a self aligned contact may be formed through a lightly doped or undoped dielectric layer stopping on a semiconductor layer which may include isolation regions such as undoped silicon dioxide without destroying the isolation regions. Because the first etch chemistry may not be selective to lightly doped or undoped silicon dioxide, the first etch chemistry may be used to rapidly etch a first and larger portion of the dielectric layer. However, etching with the first etch chemistry may be stopped after a period of time has elapsed and before the entire dielectric layer has been removed such that the isolation regions may not be exposed. In this manner, a second portion of the dielectric layer may remain after etching with the first etch chemistry to protect the isolation regions. Furthermore, forming a self aligned contact structure through a lightly doped or undoped dielectric layer may have several advantages over standard self aligned contact processes and structures because of the properties of a lightly doped or undoped dielectric material. For example, a lightly doped or undoped dielectric material may be substantially less hygroscopic and unstable than a heavily doped dielectric material.

Please replace the paragraph beginning on pg. 34, line 13, with the following rewritten paragraph.

E₂ Fig. 13 illustrates self aligned contact structure 48 formed through dielectric layer 26 and in contact with an upper surface of semiconductor layer 10. A selective etch-back process may be used to remove conductive material layer 46 from upper surfaces 28 of dielectric layer 26. Alternatively or in addition, a chemical-mechanical polishing process may be used to remove conductive material layer 46 from upper surfaces 28 of dielectric layer 26. In this manner, an upper surface of conductive material layer 46 may be substantially coplanar with upper surfaces 28 of dielectric layer 26. In addition, if an adhesion layer is used to promote adhesion between conductive material layer 46 and dielectric layer 26, then the adhesion layer 26 may be removed from upper surface 28 of dielectric layer 26 by using an etch or polishing technique. Subsequent processing may include forming additional levels of semiconductor structures such as interconnects upon upper surfaces of the dielectric layer and the self aligned contact structures. Therefore, multiple levels of semiconductor structures may be interconnected to form a working semiconductor device.